

JIRKOVSKY, I.; PROTIVA, M.; ERNEST, J.

Synthetic experiments in the group of active hypotensive alkaloids. Pts.29-30. Coll Cz Chem 28 no.11:3096-3112 N'63.

1. Forschungsinstitut fur Pharmazie und Biochemie, Prag.

JIRKOVSKY, K.

A new continuous steaming unit. p. 208. (Mechanisace Zemedelstvi, Vol. 7,  
No. 9, May 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957, Uncl.

JIRKOVSKY, K.

"The new RPDM-22 poultry-feed cutter."

p. 521 (Mechanisace Zemedelstvi) Vol. 7, no. 22, Nov. 1957  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) I.C. Vol. 7, no. 4,  
April 1958

JIRKOVSKY, Rudolf

Industrial automatic analyzer of chemical raw materials  
based on the principle of beta-radiation reflection.  
Jaderna energie 9 no. 12:391 D '63.

1. Katedra analytische chemie a radiochemie, Vyseoka skola  
banska, Ostrava.

JIRKOVSKY, Rudolf

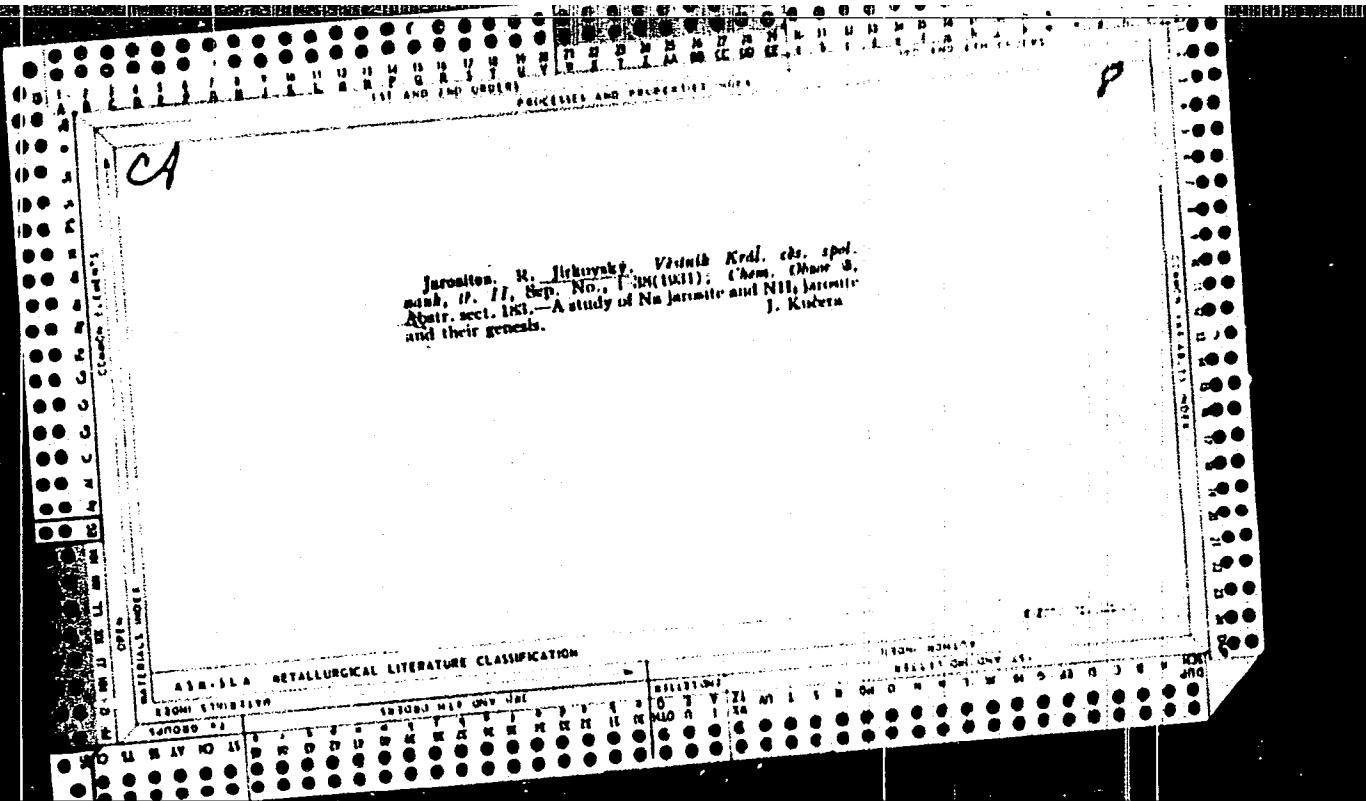
Analyzer for coal dustiness determination. Jaderna energie  
9 no. 12:391 D '63.

1. Katedra analyticke chemie a radiochemie, Vysoka skola  
banska, Ostrava.

JIRKOVSKY, Rudolf

Economic effect of the automation of chemical analysis. Chem  
prum 14 no.2: 94-96 F'64

1. Vysoka skola banska, Ostrava.



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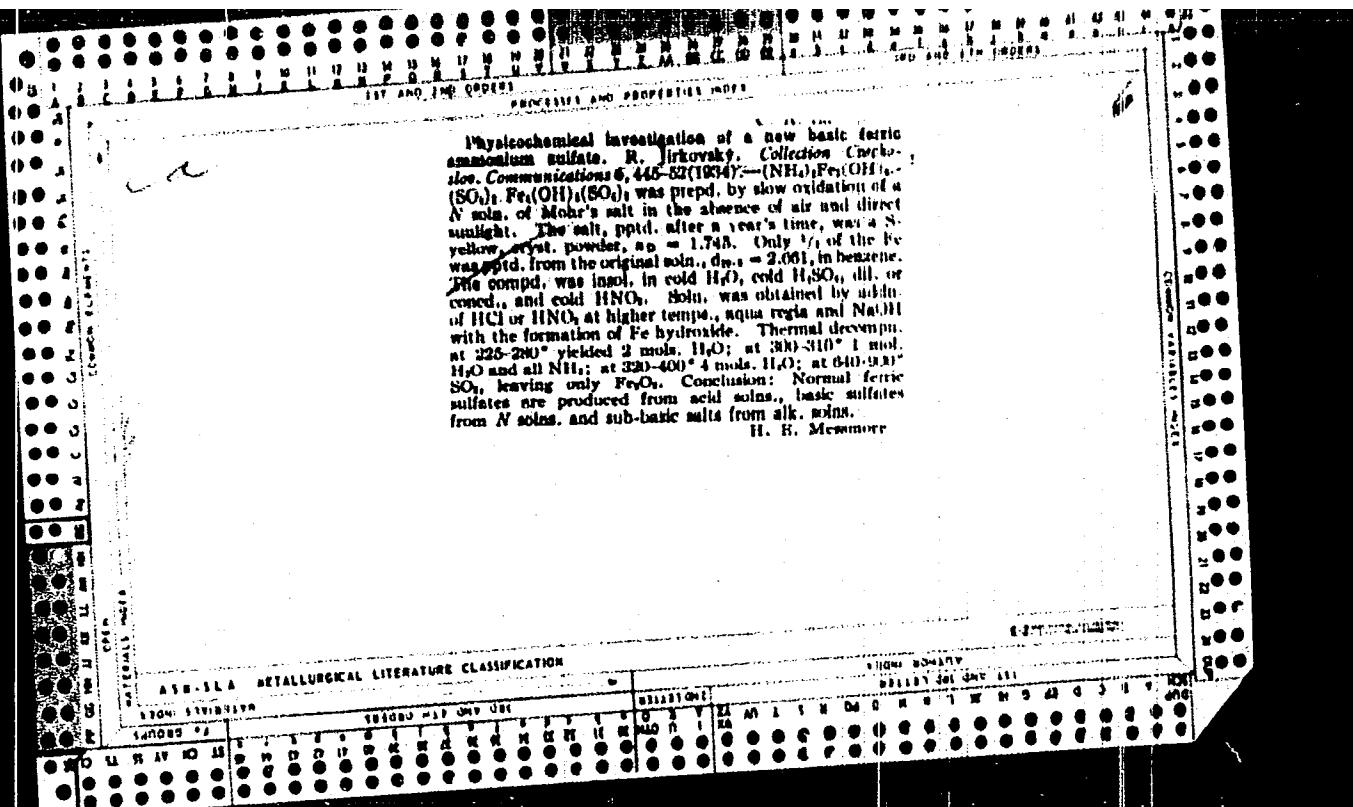
PROCESSES AND PROPERTIES INDEX

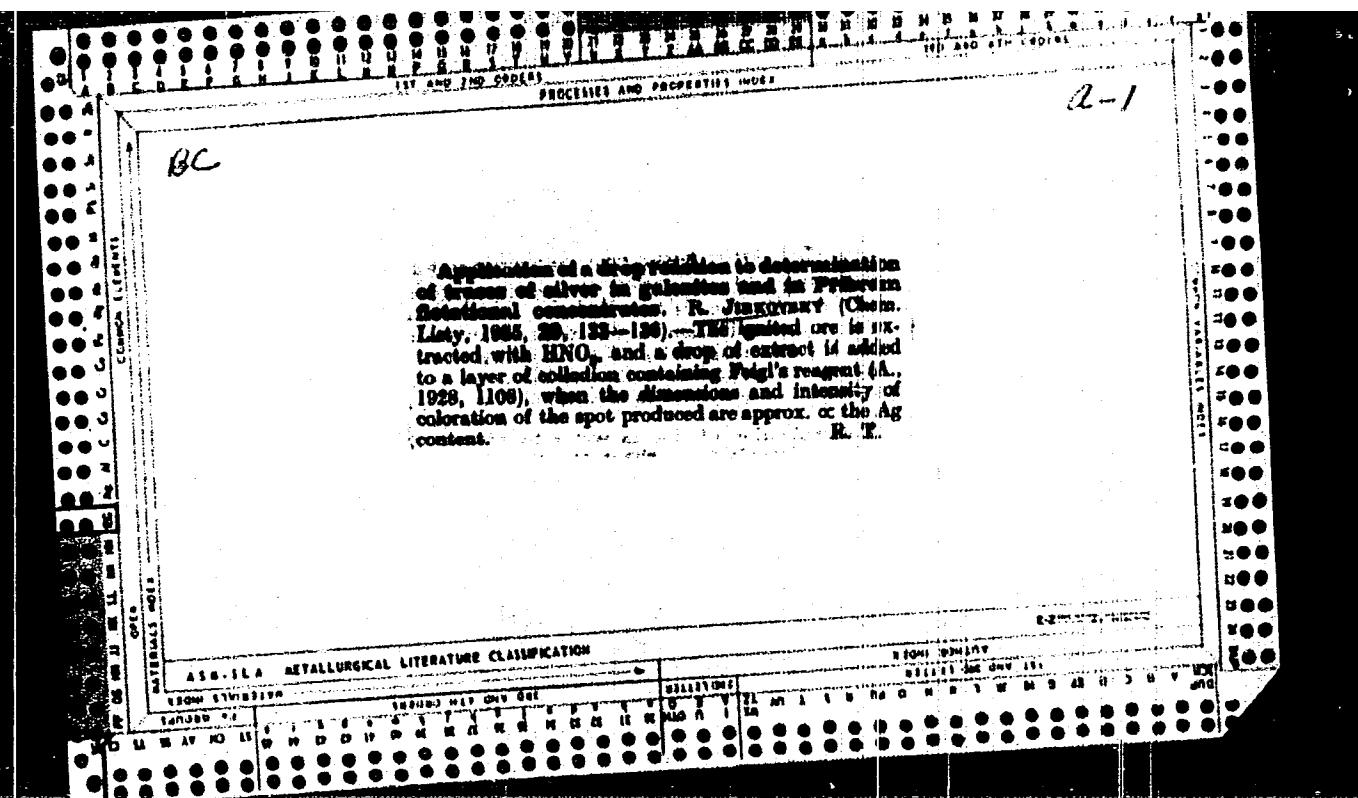
A method for the detection of small quantities of nickel and cobalt in steels without injuring the specimen. R. Jirkovský. *Chem. Listy* 25, 254-6(1931).—Place filter paper  $2.5 \times 5$  cm. freshly wet with an alc. soln. of dimethylglyoxime on a metallic cathode, place the specimen serving as an anode on the paper and maintain electrolysis for 2-3 min. at 5 millamps. This process turns the paper red-brown because of the presence of Fe, and the Ni color is obscured. To demonstrate the Ni color: (1) Dip the paper in dil.  $K_3Fe(CN)_6$  soln.; a blue color due to Fe appears. Rinse the paper in water and then dip in  $(COOH)_2$  soln., which removes the Fe color and leaves the pink Ni color. (2) Acidify the paper with AcOH until the color fades. Upon exposure to NH<sub>3</sub>, fumes the Ni color appears. Papers may be soaked in NH<sub>4</sub>CNS and electrolyzed. Treat the exposed paper with NH<sub>4</sub>OAc and AcOH in the ratio 2:1. The Fe gives a red-orange color which is removed with ether and leaves a green Ni or blue Co color. The presence of both Ni and Co gives a blue-green color; if large amounts of Co are present

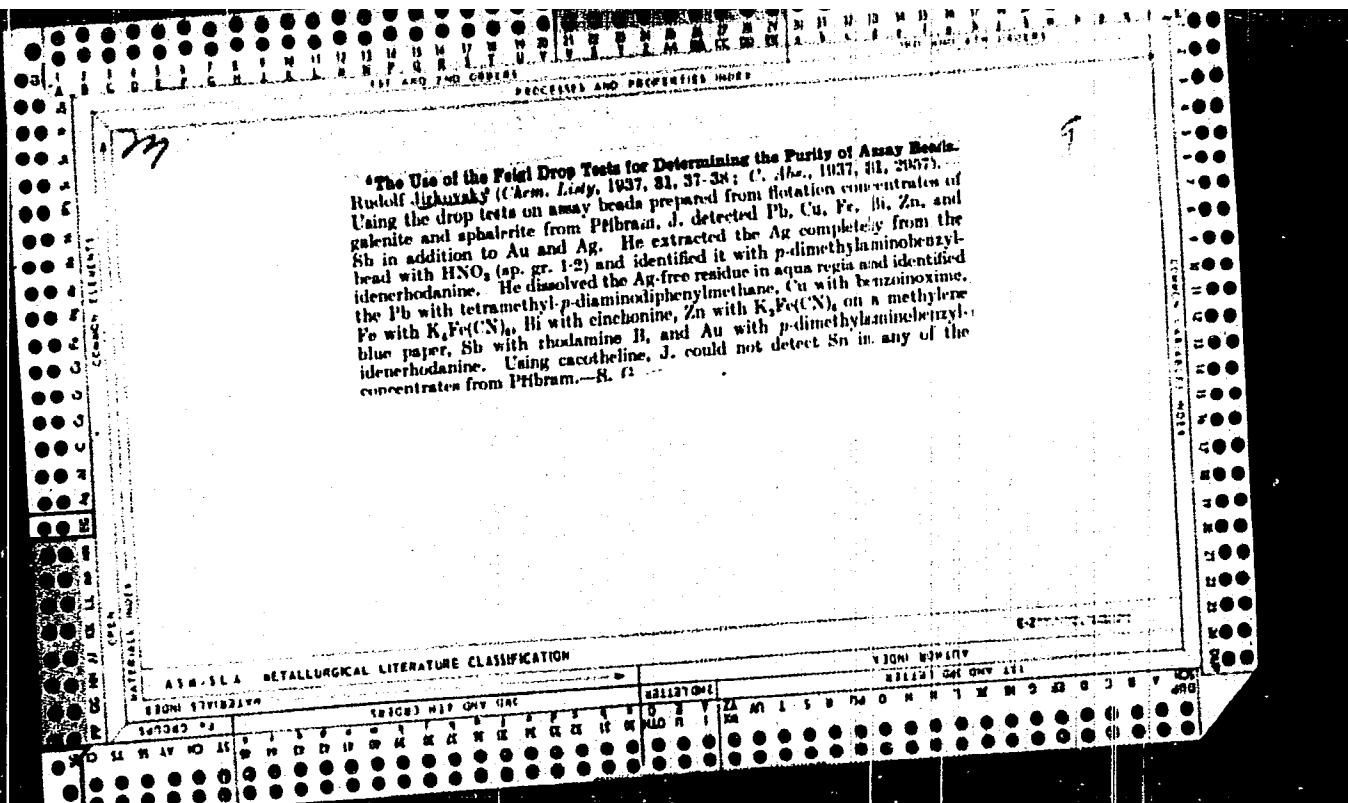
the Ni color is obscured. For Co in the presence of Fe, soak the paper in NH<sub>4</sub>CNS and electrolyze. Wash the ppt. on the paper in a mixt. of NH<sub>4</sub>OAc and AcOH until the red-orange Fe color appears; wash this away with Et<sub>4</sub>O. NH<sub>4</sub>OAc + Et<sub>4</sub>O 1:10. or AcONH<sub>4</sub>; a blue color due to Co remains. To det. Fe in the presence of large amounts of Ni, sat. the paper with an ammoniacal soln. of dimethylglyoxime and electrolyze. Wash the exposed paper in dil. HCl 1:10 to remove the Ni color and then submerge in dil.  $K_3Fe(CN)_6$ . The presence of Fe gives a blue color. The method is sensitive and may be used for minerals conte. Fe, Ni and Co. FRANK MARKSH

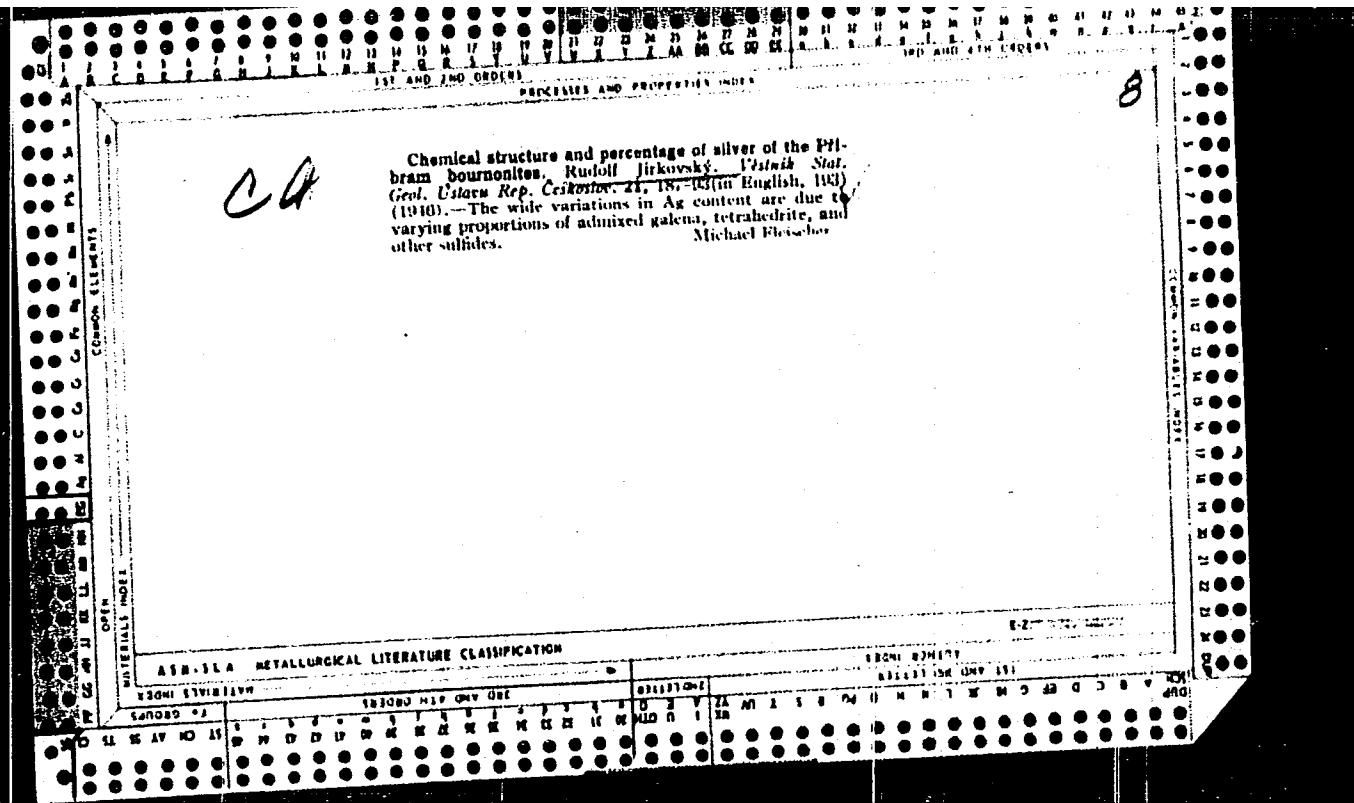
## ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

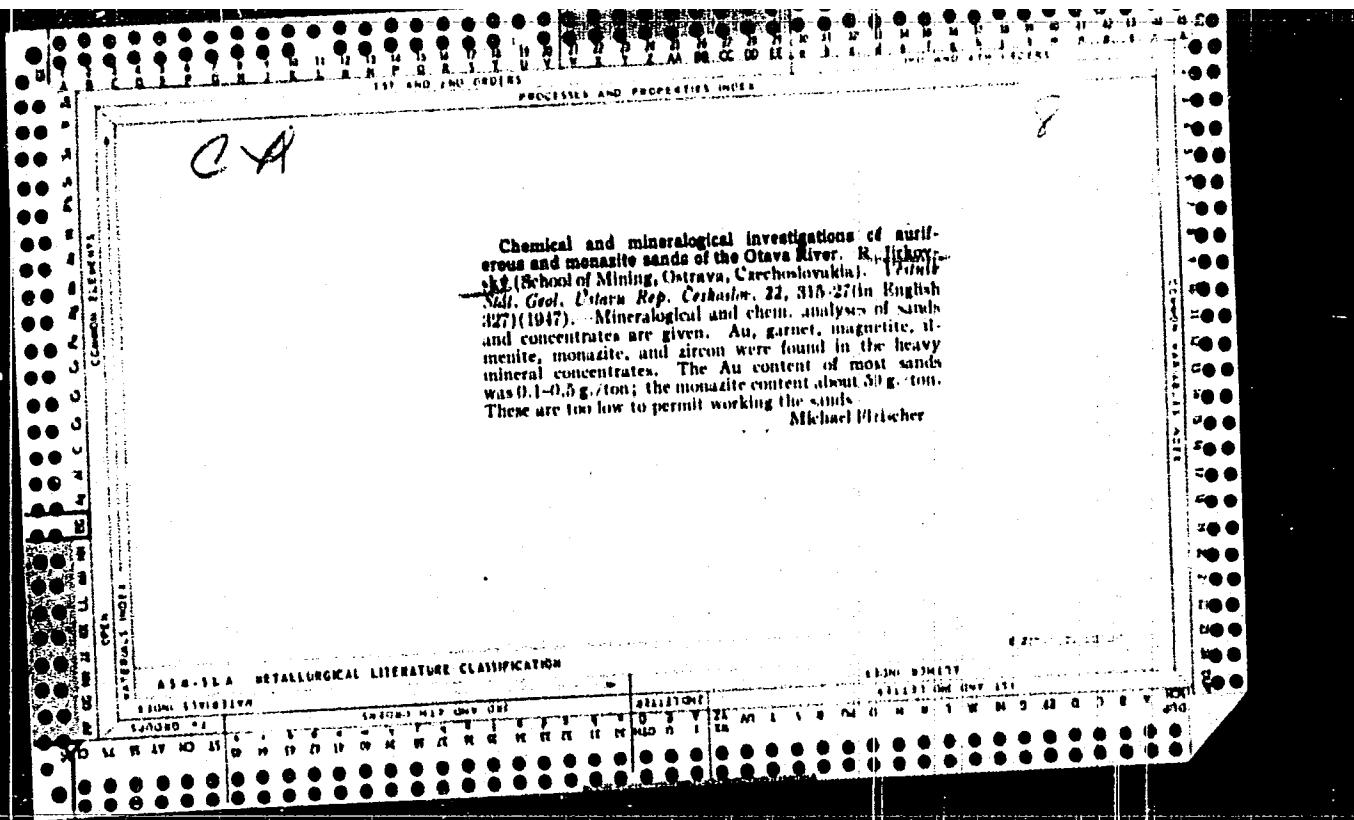
GENERAL										SPECIAL										INDUSTRIAL									
STRUCTURE					PROPS.					TESTS					METHODS					MANUFACTURE					USES				
COMPOSITION		STRUCTURE			PROPS.		TESTS			METHODS		MANUFACTURE			USES		COMPOSITION			STRUCTURE		TESTS			METHODS		MANUFACTURE		
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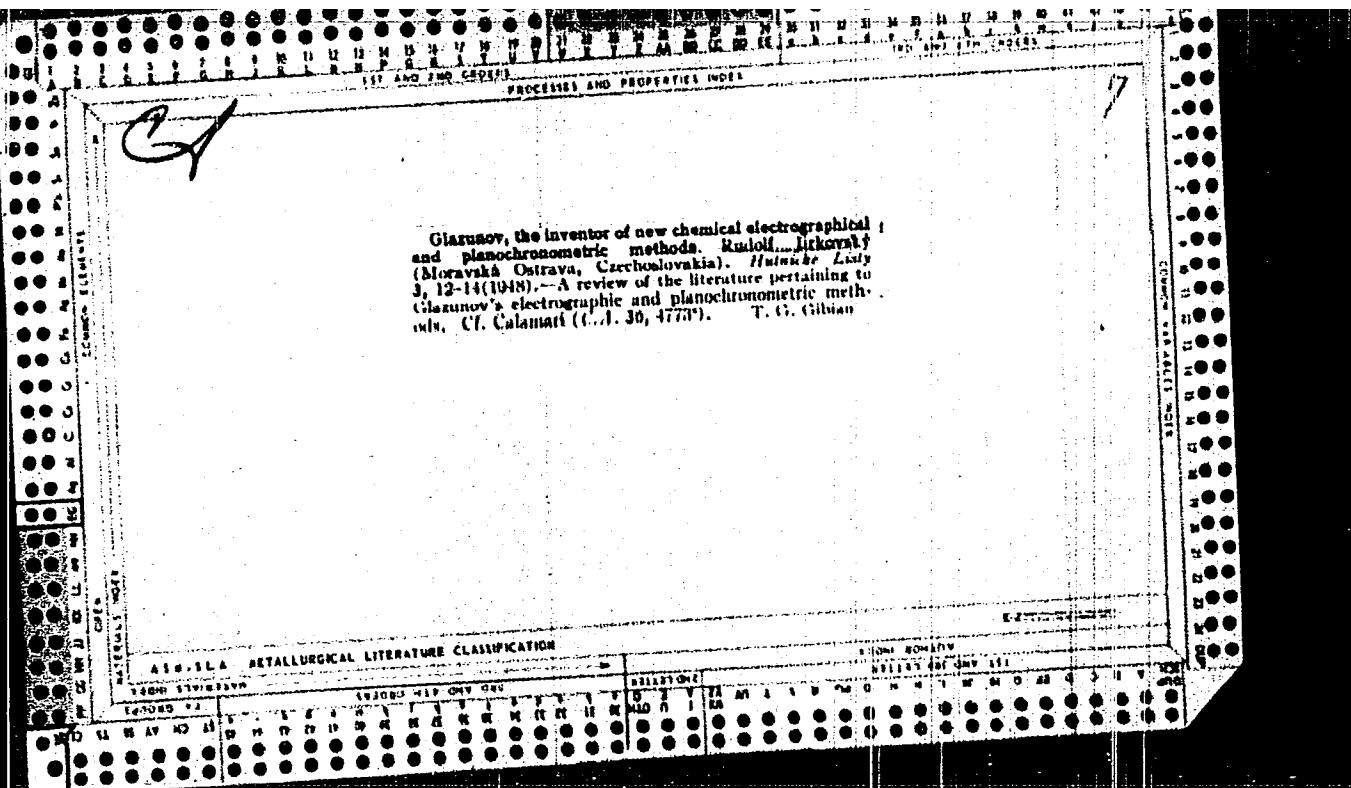


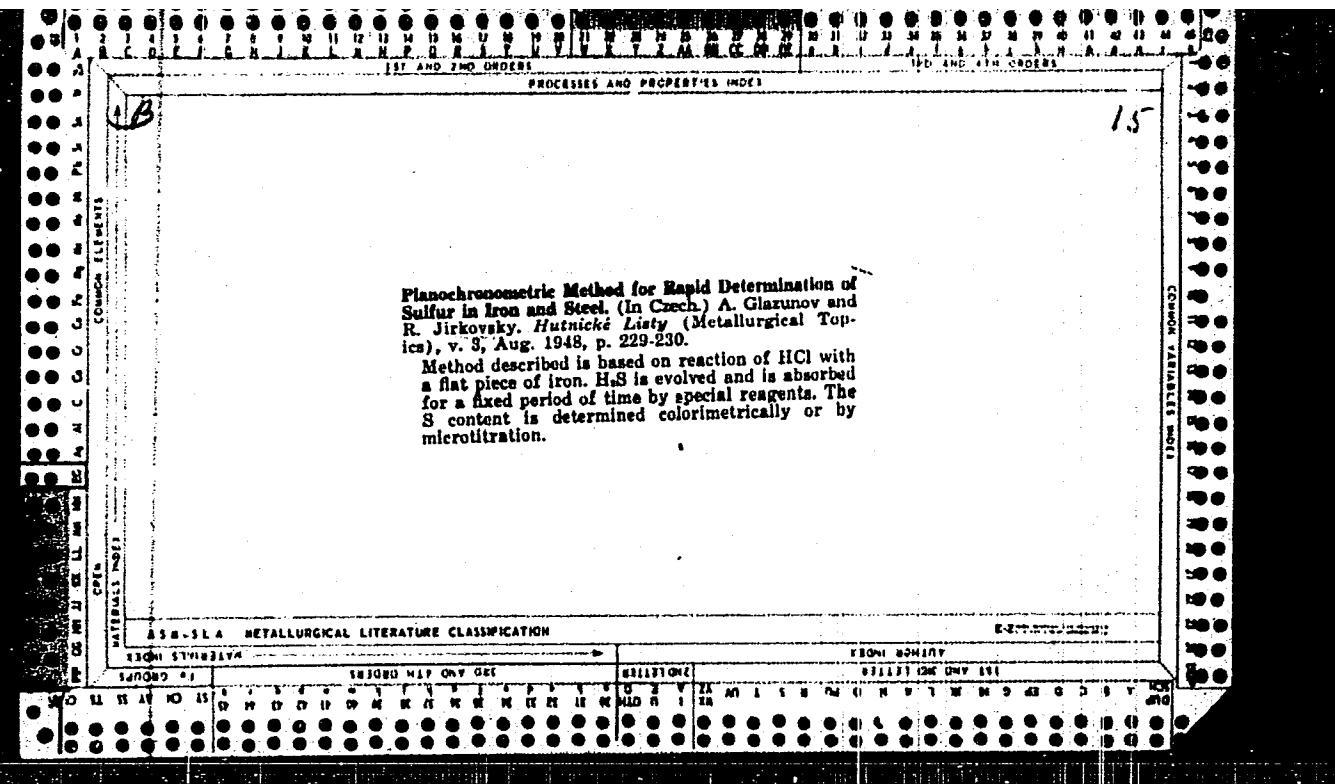












7

Titration with differential indication electrodes in argentometry. Rudolf Jirkovsky. *Chem. Listy* 42, 107-3 (1948).—From a thorough study of electrodes of various metals it follows that, besides the metals of Pt group, Ta, and W in combination with Ag, and Ag and Ta in combination with a normal electrode are the most suitable in argentometry. Uncleaned electrodes gave consistently smaller potential jumps.  
M. Hudlický

JIRKOVSKY, R.

"Development of electrography and its utilization in metallurgical practice." p. 483.  
(Chemicke Zvesti. Vol. 5, no. 8, Oct. 1951. Bratislava.)

SO: Monthly List of East European Accessions, Vol. 3, No. 6, Library of Congress, June 1954.  
Uncl.

JIRKOVSKY, R.

Analysis of mine gases. R. Jirkovsky (School of Mining, Ostrava, Czech). *Sber. Gesamt. Akad. Wiss. Acad. Chem.* 141, 195-9 (1959) (Pub. 1959).—In an effort to standardize sampling and testing procedures, the following recommendations were made. New 2-l. sampling vessels with

better provision to prevent leakage are to be used. Details of the sampling procedure are described. Samples should be analyzed within 24 hrs. of the time collected. CO is detd. in air Orsat or Lindemann app. with white P<sub>2</sub>O<sub>5</sub>. CO<sub>2</sub> is detd. in amts. <1% by absorption in a standard Ba(OH)<sub>2</sub> soln. and back titration with (CO<sub>2</sub>H)<sub>2</sub> or HCl with phenolphthalein. In amts. >1% in the Orsat or Winkler app. CH<sub>4</sub> is detd. by combustion over CuO, absorption of the CO<sub>2</sub> produced in Ba(OH)<sub>2</sub> soln., and back titration with (CO<sub>2</sub>H)<sub>2</sub> with phenolphthalein; larger amts. are detd. by combustion. CO is detd. in an app. constructed by Glatz by the I<sub>2</sub>O<sub>5</sub> method of Winter and Brauckmann (C. A. 35, 7797), where the liberated I<sub>2</sub> is absorbed in 0.001N Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> and back titrated with I<sub>2</sub>. CO can also be detd. directly in the gaseous colorimetrically within 1 min. H. N.

JIRKOVSKY, R.

"Scientific use of industrial refuse as an aid to building." Chemicky Prumysl, Praha,  
Vol. 4, No. 6, June 1954, p. 215.

SO: Eastern European Accessions List, Vol. 3, No. 11, Nov. 1954, L.C.

Jirkovsky, R.

C) // Rapid analysis for production control of high-pressure material without using shavings. R. Jirkovský and M. Kovářík (Výzkumná škola hutní, Ostrava-VI, Czechoslovakia). Chem. Zvesti 9, 470-82 (1955).--A modified Timanovskij (1970, 5334b) method was used in deterg. V., Mo, and Cr in high-pressure steam pipelines in power plants.

J. Jirkovský

JIRKOVSKY, R.

CZECHOSLOVAKIA/Geochemistry Cosmochemistry.  
Hydrochemistry

D

Abs Jour: Referat Zhur & Khim, No. 9, 1959, 30915

Author : Jirkovsky, R.

Ihst : Not given

Title : Beskyd Mineral Waters.

Orig Pub: Prirodoved Sbornik Ostravskeho Kraje, 1957,  
No 4, 574-478

Abstract: The author reports briefly on the mineralization,  
primary components, and radioactivity of 48  
mineral springs. -- G. Vorobyev

Card 1/1

JIRKOVSKY, R.

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Radioisotopes in analytic chemistry.

p. 345 (Chemie, Vol. 9, no. 3, June 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) I.C. Vol. 7, no. 2,  
February 1958

JIRKOVSKY, R.

Application of natural and artificial radioisotopes in the petroleum and mining industries.

P. 740 (Technika Praca) Vol. 9, No. 10, Oct. 1957, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. - VOL. 7, NO. 1, JAN. 1958

JIRKOVSKY, Rudolf

New apparatus for radiometric determination of the ash content of coal  
by gamma ray absorption. Jaderna energie 6 no.2:63-64 F '60.

1. Vysoka skola banská, Ostrava.

JIRKOVSKY, R.

"Minerals of radioactive elements, their origin and development" by J.Kaspar. Reviewed by R.Jirkovsky. Jaderna energie 6 no.8:288 Ag '60.

JIRKOVSKY, Rudolf

Fast radiometric valuation of iron content in ores by the beta  
radiation method. Jaderma energie 6 no. 12: 415-416 D '60.

1. Vysoka skola banská, Ostrava.

2/034/61/000/001/015/021  
E073/E535

AUTHOR: Jirkovský, R.

TITLE: All State Conference on Using Radio Isotopes in the Metallurgical Industry

PERIODICAL: Hutnické listy, 1961, No.1, pp.63-64

TEXT: The conference was organized by the Vysoká škola bánska v Ostrava, katedra chemie (Chemistry Chair of the Mining University, Ostrava), which is equipped with a radio isotope laboratory, and the Výzkumný ústav hutnictví železa v Praze (Ferrous Metallurgy Research Institute, Prague) and was held on November 24-25, 1960 in Ostrava. There were 126 participants representing metallurgical research establishments, universities and metallurgical plants from all over Czechoslovakia and also the following guests from Poland: Mr ing. Jozef Gepner, Biuro Energii jadrowej (Nuclear Energy Office, Warsaw), Mr ing. Zbygniew Bojarski, Institut metalurgii zelaza (Ferrous Metallurgy Institute, Glivice). The conference was opened by the prorector of VSB for science and research, Engineer Zdeněk Bužek C.Sc. and the rector, Professor Doctor Teofil Chlebovský. In his introductory address "Radio isotopes in metallurgy, in

Card 1/6

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E073/E535

All State Conference on Using Radio Isotopes in the Metallurgical Industry

automation and control of metallurgical processes", Professor Doctor Rudolf Jirkovsky emphasized the importance of radio isotopes to science and research and pointed out the savings which are achieved by using radio isotopes; and also the fact that the main aim of the conference was to acquaint metallurgical specialists with the possibilities of application and the useful properties of radioactive substances. A number of papers were read of which the

following are mentioned as being interesting:  
Engineer J. Skála, C.Sc., Engineer M. Mandl, C.Sc., Engineer Liu Su Čen: "Influence of deoxidation elements on the kinetics of desulphuring iron by means of S 35"; Engineer J. Kasík and Engineer L. Georgiev: "Transfer of sulphur from the fuel to the bath in open hearth furnaces"; Engineer J. Schmied: "Determination of internal axial defects in rolled products by means of scintillation counters"; Engineer J. Čadek, C.Sc., Engineer T. Myslivec, C.Sc., Engineer M. Mandl, C.Sc., Engineer J. Vršek, Engineer J. Brodský and Engineer M. Lubovský: "Identification of the origin of non-metallic inclusions in steel by means of Ca45";

Card 2/6

Z/034/61/000/001/015/021  
E073/E535

All State Conference on Using Radio Isotopes in the Metallurgical Industry

Engineer M. Mandl, C.Sc., Engineer J. Vršek: "Laboratory for application of radio-active isotopes in the metallurgical industry"; V. Rosická, industrial chemist: "Development of a technique of autoradiography for studying metallurgical materials"; ✓  
Engineer J. Kučera, Doctor L. Dvořák and Engineer L. Kudělásek: "Tensimetric (strain gauge) measurements of thermodynamic functions of silver in Ag-Cu alloys by the isotope exchange method";  
B. Zitňanský, industrial chemist: "Study of the evaporation of special Cr-Ni steels by means of radio isotopes"; Engineer J. Tomáš: "Measurement of thermodynamic constants in alloys by the Knudsen method"; Professor Doctor R. Jirkovský: "Application of electrographs for determining the self-diffusion of metals by a method of radioactive patterns"; Engineer J. Vršek: "Part played by the raw materials in the charge on contaminating with phosphorus of carbon free ferrochromium and its semi-finished products"; Doctor J. Kuba: "Application of closed radiators in the metallurgical industry"; A. Unčovský: "Measurement of the thickness of sheets"; Engineer Doctor J. Hladík: "Measurement of the weight per metre of pipes and Card 3/6

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E073/E535

All State Conference on Using Radio Isotopes in the Metallurgical Industry

of some sections"; Engineer Doctor J. Hladík: "Measurement of the thickness of metallized layers"; Professor Doctor R. Jirkovský: "Rapid determination of the ash content of coal by the method of  $\beta$ -ray reflection"; Professor Doctor R. Jirkovský: "Determination of the metal content of iron ores by  $\beta$ -ray reflection"; J. Štech: "Application of various isotopes in defectoscopy, work at ZVIL (Skoda), Pilsen; B. Žitňanský: "Application of radio isotopes for solving welding problems".

The Polish delegates also presented a brief paper on work carried out in Poland in the field of utilizing radio isotopes in the metallurgical industry.

The following resolutions were adopted:

- 1) The activities of the Commission for Utilizing Radio Isotopes and Ionizing Radiation in the Metallurgical Industry at MHD should be re-established before December 15, 1960 and this Commission would act in an advisory capacity. Its first task should be to work out the plans of the main tasks involved in introducing radio isotopes into the metallurgical industry during the third Five Year

Card 4/6

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E073/E535

All State Conference on Using Radio Isotopes in the Metallurgical Industry

Plan, including the requirements to be met from the point of view of instrumentation and equipment. The following people were recommended to participate in this Commission: Engineer Mandl, VÚHŽ, Prague; Doctor Jaromír Kuba, VÚHŽ, Brno; Industrial chemist, B. Zitnanský, VUZ Bratislava; Professor Doctor Jirkovský, VSB, Ostrava, Engineer T. Myslivec, VŽKG, Ostrava; Engineer Engel, SONP, Kladno; Engineer B. Karas, Válcovny trub Chomutov (Tube Rolling Mills, Chomutov); Engineer B. Chodura, TŽ VRSR; Engineer A. Kuba, Hutní projekt Prague; Engineer J. Hrubý, Hutnický ústav ČSAV Praha (Metallurgical Institute, ČSAV, Prague); Doctor Kučera, Laboratoř pro studium vlastností kovů, Brno (Laboratory for Study of the Properties of Metals, Brno); Doctor Sedláček, VÚK Panenské Brežany; Engineer Cibulka, Ústav pro výzkum rud Praha (Institute for Ore Research, Prague). This Commission is to cooperate closely with the Komise pro atomovou energii SVRT (Atomic Energy Commission SVRT).  
2) To extend the VSB Laboratory in Ostrava with a model laboratory for utilizing radio isotopes in the metallurgical industry and create there a centre for training personnel in radio isotope work.

Card 5/6

Z/034/61/000/001/015/021  
E073/E535

All State Conference on Using Radio Isotopes in the Metallurgical Industry

- 3) To extend the cooperation of universities, research institutes and industry in the field of utilizing radioactive isotopes.
- 4) To initiate close cooperation with personnel working on similar problems in other Soviet Bloc countries.

The papers presented at the conference will be published by VÚHŽ Prague 3 in a special symposium.

Card 6/6

Z/038/62/000/005/002/002  
D408/D302

AUTHOR:

Jirkovský, Rudolf

TITLE:

Wide application of radioisotopes and training  
workers in the GDR

PERIODICAL:

Jaderná energie, no. 5, 1962, 168

TEXT:

The author describes his impressions during a visit of East-German radioisotope laboratories and training centers in September 1961. Many East-German institutes of technology have radioisotope laboratories with most modern equipment supplied by the firms Vaktronik and Friescke-Höppner, radioactive waste disposal facilities, safety equipment, central control and measuring stations, etc. Also many metallurgical, chemical, and other plants have their own radioisotope shops for defectoscopy, research, etc, staffed with 5 - 200 workers. The Bergakademie (Mining Academy) in Freiberg has a separate radioisotope laboratory for almost every department. The Institut für Metallhüttenkunde (Metallurgy Institute) of the Freiberg Mining Academy has ✓

Card 1/3

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Wide application of radioisotopes ... D408/D302

a laboratory equipped by the firm Geyer, where students of the 8th semester are trained in the use of radioisotopes in metallurgy, the Institut für anorganische Chemie (Inorganic Chemistry Institute) has a laboratory where students are taught the principles of radiochemistry, and the Physical Institute has two radioisotope laboratories for study of mining problems and neutron and gamma probes in prospecting. The Institut für Werkstoffprüfung (Material Testing Institute) at the Heavy Engineering School in Magdeburg has a modern laboratory for gamma defec-toscopy and offers postgraduate courses in this field. This institute, headed by Professor Doctor Schiebold, bearer of the GDR State Prize, is also equipped with an instrument similar to an X-ray screen, used for direct viewing of gammagraphs. The Hochschule für Bauwesen (Civil Engineering College) in Leipzig has a laboratory for application of radio-isotopes in constructional engineering and offers 4-week postgraduate courses for civil engineers. The Institut für Anwendung radioaktiver Isotope (Institute for Application of Radioisotopes) at the Technical University in Dresden, headed by Professor Doctor Herforth, is one of

Card 2/3

Wide application of radioisotopes ...

Z/038/62/000/005/002/002  
D408/D302

the best equipped research centers in the GDR with seven radioisotope laboratories, a large dosimetry research shop, and a training laboratory for use of shielded radiators in industrial measuring and control operations. This institute also offers 14-day postgraduate courses and issues licenses for technicians operating with radioactive materials. Courses in the application of unshielded radiators are offered by the Institut für angewandte Radioaktivität (Institute for Applied Radioactivity) in Leipzig. In conclusion the author states that the GDR makes great efforts to train workers operating with radioactive materials, and that East-German isotope shops and training facilities should be taken as an example for introducing similar installations in the ČSSR.

ASSOCIATION: VŠB, Ostrava (VŠB, Ostrava)

Card 3/3



JIRKOVSKY, R.; TRZIL, J.

Thermal decomposition of Slovak siderites. Silikaty 6 no.1:36-42  
'62.

1. Katedra chemie, Vysoka skola banská, Ostrava.

JIRKOVSKY, Rudolf, prof., dr.

Use of the electrograph for determining the self-diffusion of metals  
by the radioactive impression method. Sbornik skol ban 8 no.3:  
255-260 '62.

JIRKOVSKIY, Rudolf, prof., dr.

Using waste rock slimes from coal washing for aluminum oxide production. Sbor.VSB Ostrava 8 no.5:477-480 '62.

1. Vysoka skola banská, Ostrava.

JIRKOVSKY, Rudolf

Determining the organic residue in ashes from electric power  
plants by beta radiation. Jaderna energie 8 no.9:329 S '62.

1. Vysoka skola banská, Ostrava.

JIRKOVSKY, Rudolf, prof., dr.

Development of the use of radicisotopes in science and technology.  
Tech.praca 14 no.10:803-805 '62.

1. Vysoka skola banska, Ostrava.

JIRKOVSKY, R., prof. dr.

Development of beta-back scattering fast analysis in metallurgical laboratories. Koh lap 95 no.11:513-517 N '62.

1. Banyaszati es Kohaszati Foiskola, Ostrava, Czechoslovakia.

JIRKOVSKY, Rudolf, prof., dr

Basic radiometric equipment for automation and control in  
mines. Uhli 5 no.5:183-184 My '63.

1. Vysoka skola banská, Ostrava.

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5

JIRKOVSKY, R.

International Congress of Nuclear Physicists in Krakow. Jaderna  
energie 9 no.1;35 Ja '63.

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5"

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5

JIRKOVSKÝ, R.

Search for ore deposits by the recording gamma spectrometry and  
neutron activation analysis. Jaderna energie 9 no.8:273 Ag '63.

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5"

JIRKOVSKY,R.

Methods of fast determining element concentration in ore  
samples by radioisotopes. Jaderna energie 9 no.9:302-303  
S'63.

JIRKOVSKY, Rudolf

Examination of the possibility of using radioisotopes in  
automation and mechanization of metallurgic and mining  
industries. Jaderna energie 9 no.11:356 '63.

1. Katedra analyticke chemie a radiochemie, Vysoka skola  
banska, Ostrava.

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5

JIRKOVSKY, R.

Methods of nuclear geophysics in the naphta industry.  
Jaderna energie 9 no.11:363-364 '63.

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5"

JIRKOVSKY, Rudolf, prof. dr.

Automatic coal classification according to the ash content. Uhli  
6 no.6:207-208 Je '64.

1. Higher School of Mining, Ostrava.

JIRKOVSKY, Rudolf, dr. prof.

Automatic radiometric control of chemical composition of graphite raw materials on the production lines of dressing plants. Rudy 12 no.6:205-206 Je '64.

1. Head of the Chair of Analytical Chemistry and Radiochemistry,  
Higher School of Mining, Ostrava.

L 18507-66	EWP(t)	DIAFP/LJP(c)	JD			
ACC NR:	AP6010254		SOURCE CODE:	CZ/0034/65/000/003/0.003/0204		
AUTHOR:	Jirkovsky, Rudolf (Professor; Doctor)					50
ORG:	VSB, Ostrava					B
TITLE:	Use of radiometric methods in determination of hydrogen and oxygen in metals					19
SOURCE:	Hutnické listy, no. 3, 1965, 203-204					27 44-55, 14
TOPIC TAGS:	isotope, radiometry, hydrogen, deuterium, metal, radiometer, oxygen, radioactivity measurement					
ABSTRACT:	A new method suggested by the author is described; it is based on an isotope exchange between hydrogen and its isotope deuterium. The apparatus designed by the author and operation instruction are described. The sample of the metal is placed in a deuterium atmosphere, and after heating for 20-30 minutes the ratio of hydrogen to deuterium in the gas is determined spectroscopically. The amount of hydrogen in the metal is then calculated according to a formula given by the author. Oxygen determination is based on an exchange between O <sub>16</sub> and O <sub>18</sub> , and the spectroscopic determination of O <sub>16</sub> in O <sub>18</sub> . Another method described by the author is based on activation of O <sub>16</sub> by gamma radiation and production of O <sub>15</sub> , which is radioactive and is measured. Oxygen content is then calculated according to author's formula. Accuracy of the method is 0.001%, and does not depend on the manner in which					
Card	1/2					2

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ACC NR: AP6010254

oxygen is combined in the metal. Orig. art. has: 1 figure and 3 formulas. [JRS]

SUB CODE: 18, 11 / SUBM DATE: none / OTH REF: 003 / SOV REF: 004

Card 2/2 QC

L 34162-66 EWP(t)/ETI IJP(c) JD

ACC NR: AP6026043

SOURCE CODE: CZ/0034/66/000/003/0203/0205  
20  
BAUTHOR: Jirkovsky, Rudolf (Professor; Doctor)ORG: College of Mining, Ostrava (VSB)TITLE: New apparatus for quantitative electrolytic isolation of carbides from  
non-alloyed steels

SOURCE: Hutnické listy, no. 3, 1966, 203-205

TOPIC TAGS: carbide, mechanical separation, electrolytic refining, chemical  
laboratory apparatus

ABSTRACT: Purely chemical methods are not suitable for the separation of carbides from non-alloyed steels. Best results were obtained by electrolytic isolation, washing, and weighing under an inert gas atmosphere. Important factors in these methods are the shape of the sample, the nature of the inert gas, and the electrolyte. The improvement suggested by the author uses Pt electrodes, 40 mm diameter, 0.5 mm thick; cathode side facing the anode is protected by a layer of plastic. The electrolyte is disodium ethylenediaminetetraacetate. Fe ions are held so firmly in the complex that free Fe ions can not be found in the solution. Operation between pH 7 - 14 is suitable. The actual operating solution contains 9.31g of the salt, and 20g of NaSCN

Card 1/2

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ACC NR. AP6026043

per liter; pH is adjusted to 7 by NaOH. Argon is used as inert gas. Commercial production of an apparatus according to author's design is proposed in East Germany. Orig. art. has 2 figures. [JPRS: 36,646]

SUB CODE: 11, 07 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 030

Card 2/2 80

Z/012/63/000/002/001/001  
E112/E535

AUTHORS: Jirkovský V. and Mikulicková J.

TITLE: Testing of vacuum-tight, solderable metal layer on ceramic objects

PERIODICAL: Silikaty, no.2, 1963, 139-149

TEXT: A method is described for determining the metal to ceramic bond strength of coatings. The purpose is to arrive at quantitative criteria for assessing to what extent other metals could be soldered on to these surfaces. Ceramic test specimens of high corundum content and annular shape were treated at elevated temperatures with dilute HNO<sub>3</sub>:HCl, washed with NH<sub>4</sub>OH and distilled water and heated in an oxidizing atmosphere to 900-1000°C. A novel coating composition which does not require extremely high-temperature furnaces was developed (Czechoslovak Patent No.90551), consisting of a collodion-anhyd acetate suspension of powdered molybdenum, ferrosilicon and lithium fluoride. After coating, the test specimens were fired in a reducing atmosphere of 2 parts H<sub>2</sub>: 1 part N<sub>2</sub> at 1200°C. The thickness and conductivity of the metal layer were then determined.

Card 1/2

Testing of vacuum-tight

Z/012/63/000/002/001/002  
E112/E535

The primary coating was provided with a nickel layer by electro-plating. Two coated test specimens were joined together by means of an Ag-Cu solder. The strength of the bond was determined quantitatively by bending tests on the Schopper machine. The effects of the following experimental factors on bond strength were studied: 1) Thickness of primary metal coating; 2) Temperature of firing; 3) Length of firing; 4) Thickness of nickel layer; 5) Temperature of heating nickel layer. The effects of heating conditions and layer thickness on electrical conductivity were also determined. Optimum conditions were: thickness of primary layer: 6 mg/cm<sup>2</sup>; firing in H<sub>2</sub>:H<sub>2</sub> 1:1, at 1230 ± 30°C, 17 min; electroplating with nickel, using 35% ± 20% on weight of primary coating; nickel-coating heated in H<sub>2</sub>-atmosphere at 700°C ± 10°C for 20 min. There are 11 figures and 1 table.

ASSOCIATION: Výzkumný ústav pro vakuovou elektrotechniku, Praha  
(vacuum Electrical Engineering Research Institute,  
Prague)

SUBMITTED: July 7, 1962  
Card 2/2

TAKACS, J.; JIRKOVSKY, Margit; HEGYI, Z.

Studies on the microbiological and biochemical changes involved in the ripening process of Hungarian salami.  
Acta veter Hung 13 no.2:119-135 '63.

l. Central Laboratories of Veterinary Meat Control Service  
(Head: J. Takacs), Budapest.

JIRKU, Bohumil

Present requirements of the mechanization of sanitaryware  
shaping from the economic point of view. Sklar a keramik  
15 no.3:109-111 Mr '65.

1. Keramicke zavody National Enterprise, Znojmo.

CZECHOSLOVAKIA/Chemical Technology. Chemical Products H  
and Their Uses. Part II. Ceramics, Glass,  
Binding Materials. Concrete.

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 51113

Author : Jirku, E.

Inst : -

Title : Fast Setting Cement Production.

Orig Pub : Stavivo, 1957, 35, No 12, 494-498

Abstract : The effect of specific surface area on  
the stability of cement is described. The  
role played by additives in increasing  
the hardness of cements in the initial  
stages of hardening ( $\text{CaCl}_2$ , gypsum) is  
discussed. The production means for commer-  
cial development of such cements are dis-  
cussed. -- From the author's resume.

Card : 1/1

CZECHOSLOVAKIA / Chemical Technology. Chemical Products and Their Application--Ceramics. H-13  
Glass. Binding Materials. Concrete

Abs Jour: Ref Zhur-Khimika, No 3, 1959, 9113

Author : Jirku, E.

Inst : Not given

Title : Effect of Air in Calcining Cement in Shaft Furnaces

Orig Pub: Stavba, 1958, 5, No 5, 152-153

Abstract: The hydrodynamics of shaft furnaces was studied and it was shown that underestimation of this factor frequently is the main reason for low productivity. Replacement of the cylindrical portion of the furnace summit with a conical one

Card 1/2

152

Card 2/2

CZECHOSLOVAKIA/Chemical Technology. Chemical  
Products and Their Applications.  
Ceramics. Glass. Binding Materials.  
Concrete. - Binding Materials. Con-  
crete and Other Silicate Construc-  
tion Materials.

H

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 20282

Author : Jirku, Emil

Inst :

Title : Possibility of the Production of Special  
Cements in Slovakian Plants.

Orig Pub : Stavba, 1958, 5, No 7, 297-211 [sic]

Abstract : The work of the cement plants of Slovakia  
is briefly described. It is indicated that  
the production of special cements (SC) in

Card : 1/3

CZECHOSLOVAKI./Chemical Technology. Chemical Products and Their  
Application. Ceramics. Glass: Binding Materials.  
Concrete.

H-13

Obs Jour: Ref Zhur-Khim., No 2, 1959, 5571.

Author : Jirku, E.

Inst :

Title : Viscosity at Formation of Clinker in Cement Furnaces.

Orig Pub: Stavivo, 1958, 36, No 3, 91-96.

Abstract: The development of rings on the lining of furnaces depends on the viscosity of the products of burning. The use of fluosilicates as additions furthering the melting and crystallization of the mixture, if added in an amount greater than 1.5%, results in the decomposition of  $\text{Ca}_3\text{C}$  into  $\text{Ca}_2\text{S}$  and  $\text{CaO}$  [sic]. - Ye. Stefanovskiy.

Card : 1/1

JIRKU, E.

"A contribution to the theory and practice of granulation on granulating pans. p. 120."

SILIKATY. Praha, Czechoslovakia. Vol. 3, no. 2, 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass.

JIRKU, E.

"Magnesia cement." p. 204.

STAVBA. (POVERENICTVO STAVEBNICTVA). Bratislava, Czechoslovakia, Vol. 6, no. 7,  
July 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 9, September 1959.  
Uncl.

JIRKU, E.

Determination of the course velocity and dilutions degree of the material in tube mills. p. 254.

STAVIVO. (Ministerstvo stavebnictvi) Praha, Czechoslovakia. Vol. 37, no. 8, Aug. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, no. 10, Oct. 1959. Uncl.

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5

JIRKU, Emil

The effect of the variety of cement on the vaporability  
of concretes. Epitoanyag 14 no.9:318-327 S '62.

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5"

JIRKU, E., inz.

Explosion danger from carbon monoxide in shaft kilns of  
cement factories. Stavivo 41 no.4:132-136 Ap '63.

1. Vyskumno-vyvojove pracovisko ZMAV, Horne Srnie.

JIRKU, E., inz.; SLAHUCKA,V.

Evaluation of the stability of raw cement material particles  
under thermal shock. Stavivo 42 no.4:122-126 Ap '64

1. Vyvojove pracovisko ZMAV, Horne Srnie.

JIRKU, Emil

Physical properties of cement factory raw materials.  
Epitoanyag 16 no.9:333-337 S '64.

1. Research Institute of Building Materials Industry, Horné  
Srnie, Czechoslovakia.

JIRKU, F.

Czechoslovakia

Anordnung von Loeschrohren an Hochspannungsleitungen.

SO: Energie Technik, December, 1955, Unclassified.

42966

S/058/62/000/011/032/061  
A160/A101

2,720

AUTHORS: Zadražil, Milan, Jirků, Jan

TITLE: A device for the tuning of a klystron

PERIODICAL: Referativnyy zhurnal, Fizika, no. 11, 1962, 20,  
abstract 11-3-40m P (Czechoslovakian pat., cl. 21g, 13/17,  
no. 100687, Aug. 15, 1961)

TEXT: A description is given of a device for the smooth mechanical tuning  
of reflex klystrons by changing the distance between the grids, whereby the  
parallelism between these grids is maintained. The tuning gear consists of a  
pair of small levers, the position of which is regulated with the help of a  
differential screw.

N. S.

[Abstracter's note: Complete translation]

Card 1/1

JIRKU, Jaroslav, inz. CSc.; SVOBODA, Stanislav

Contribution to the problem of line-dropping overvoltage.  
El tech obzor 53 no.4:202-208 Ap '64.

1. Research Institute of Power Engineering, Brno.

JIRKU, Josef, promovany ekonom.

The degree of the Candidate of Sciences. Sdel tech 10 no.12:450  
D '62.

JIRKU, Jaroslav, inz. CSc.

Atmospheric oversvoltage on extra-high tension lines.  
Energetika Cz 14 no. 3: 118-122 Mr '64.

1. Research Institute of Power Engineering, Brno.

JIRKU, Jaroslav, inz. CSc.

Operational overvoltage in extra-high-voltage lines.  
Energetika Cz 14 no. 4: 158-164 Ap '64.

1. Research Institute of Power Engineering, Brno.

JIRKU, J.  
JIUKU, J.

KALOUSEK, V., JIRKU, J.

"Importance of Ground Wires as Protection Against Excess Voltage in High-Voltage Networks Especially with Reference to 22 kw. Lines," p. 196.  
(Elektrotechnicky Obzor, Vol.42, No.4, Apr. 1953, Praha.)

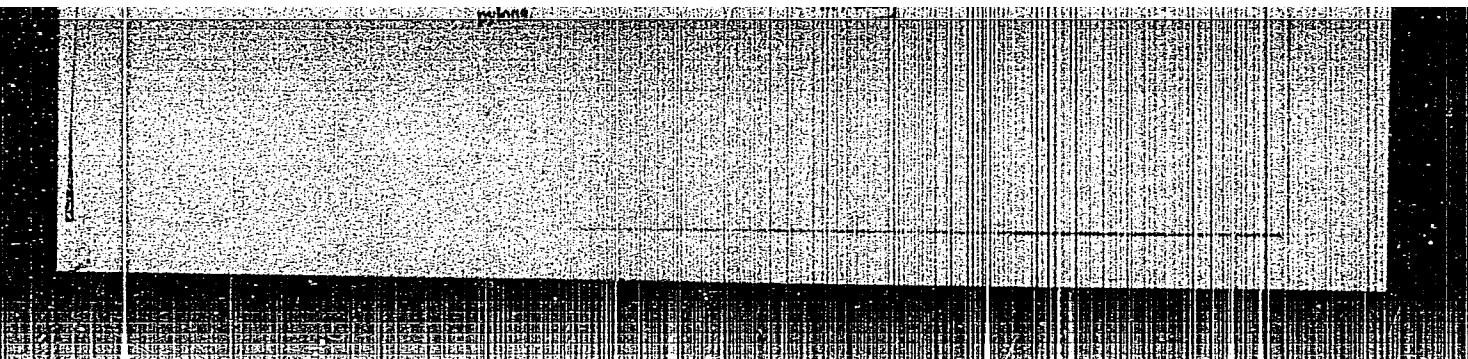
S0: Monthly List of East European Accessions, Vol.2, No.9, Library of Congress, September 1953, Uncl.

421.315.668.1  
4227. The advantages of wood poles for L. V. power transmission lines with conductors of two sizes  
*Energetika* Prague 4 No. 7, 112-113 (1957)

The additional line protection afforded by wood poles in the case of a lightning strike to one conductor of a transmission line without earth conductor is treated mathematically in great detail. It is shown theoretically and confirmed by practical results that the fault incidence is considerably smaller on

"APPROVED FOR RELEASE: 08/10/2001

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APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5"

JIRKA, J.

Protection of small-scale high-tension transformers with Torok tubes. p. 231.  
ENERGETIKA, Praha, Vol. 5, no. 6, June 1955.

SO: Monthly List of East European Accessions, (ESAL), LC, Vol. 4, no. 10, Oct. 1955,  
Uncl.

JIRKU, J.

JIRKU, J. Characteristics of the igniting voltage of Torek tubes for 22 kv. p. 306.

Vol. 6, no. 7, July 1956

ENERGETIKA

TECHNOLOGY

Czechoslovakia

So: East European Accession; Vol. 6, No. 5, May 1957

JIRKUL JAROSLAV

CZECHOSLOVAKIA / Radiophysics. Radio Measurements.

I-7

Abs Jour : Ref Zhur - Fizika, No 5, 1957, No 12597

Author : Hajek Jaroslav, Jirkul Jaroslav

Inst : Power Institute, Brno, Czechoslovakia

Title : Investigation of Pulse Processes with the Aid of the "Analogon."

Orig Pub : Elektrotechn. obzor, 1956, 45, No 10, 504-510

Abstract : Description of the construction and possible application of a new generator with impact excitation, called by the author the "analogon". It is indicated that this generator is most advantageously used for the investigation of transient phenomena in power systems.

Card : 1/1

JIRKU, J.; DOMANSKY, D.

The use of insulating supports for power lines.

P. 430. (ENERGETIKA.) (Praha, Czechoslovakia) Vol. 7, No. 8, Aug. 1957

SO: Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 5, May 1958

JIRKU, J.

"Protection against overvoltage."

p. 370 (Elektrotechnik) Vol. 12, no. 12, Dec. 1957  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

JIRKU, J.

"Breakdowns of transformers in power-distribution systems; also, comments by Makovicky."

Energetika, Praha, Czechoslovakia. Vol. 8, no. 12, Dec. 1958.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

JIRKU, J.

Current loading of lightning arresters during direct stroke into transmission lines. p. 277.

ENERGETIKA. Praha, Czechoslovakia, Vol. 9, no. 6, June 1959

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 10,  
Oct. 1959  
Uncl.

JIRKU, J.; DOMANSKY, D.

Surge stresses of high-voltage distributing transformers at chopped surge waves.  
p. 472.

ELEKTROTECHNICKY OBZOR. (Ministerstvo tezkiho strojirenstvi a  
Ceskoslovenske vedecka technicka spolecnost pro elektrotechniku pri  
Geskoslovenske akademii ved) Praha, Czechoslovakia. Vol. 48, no. 9, Sept. 1959.

Monthly list of East European Accessions (EEAI) LC, vol. 9, no. 1, Jan. 1960.

Uncl.

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5

GERT, R.; JIRKU, J.

Research on internal overvoltage. Energetika ČSSR 11 no. 10:529 0 '61.

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5"

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5

JIRKU, Jaroslav, inz., C.Sc.; SVOBODA, Stanislav

Overvoltage in disconnecting an unloaded 35 kv transformer by manually operated switch. Energetika Cz ll no.8:371-374 Ag '61.

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5"

GERT, Richard, inz., kandidat technickych ved; JIRKA, Jaroslav, inz.,  
kandidat technickych ved; KALOUSEK, Vaclav, inz., kandidat technickych  
ved; POPOLANSKY, Frantisek, inz., kandidat technickych ved

Protection of high-tension transformers against overvoltage.  
El tech obzor 50 no.11:639-650 N '61.

1. Vyskumny ustav energeticky, zakladni pracoviste, Brno.

ZAJIC, V., inzh.; PANEK, J., inz., C.Sc.; GERT, R., inz., C.Sc.;  
JIRKU, J., inz., C.Sc.

Switching of large shunt capacitor banks for reactive power  
compensation. Bul EGU no.5/6:1-10 '62.

1. Statni vyskumny ustav silnoproude elektrotechniky, Bechovice  
(for Zajic and Panek) 2.Vyzkumny ustav energeticky, Brno (for  
Gert and Jirku).

GERT, R., inz., C.Sc.; JIRKU, J., inz., C.Sc.; KALOUSEK, V., inz., C.Sc.;  
VYSKOCIL, V., inz., C.Sc.

Statistical survey of overvoltages, the coordination of insulation  
between phases, and the electric strength to switching surge.  
Bul. EGU no. 5/6:10-22 '62.

JIROUSEK, Jaroslav, doc. inz. CSc.

Tables of moments of uniformly loaded circular slabs with  
linear thickness changes. Inz. stavby 12 no. 7 t 303-307 JI '64

1. Higher School of Technology, Brno.

FIEDLER, Jiri, inz., C.Sc.; JIRKU, Ladislav

Quality of sugar-beet seed subjected to various methods of  
mechanical treatment. Rost výroba 9 no.3/4:363-372 Mr-Ap '63.

1. Vyzkumný ústav reparský, Semcice.

JIRMAN, J.

Facial hemangioma associated with choriocidealangioma and its relation  
to the Sturge-Weber disease. Rozhl. chir., 29:6, 1950. p. 257-66.

1. Of the Eye Department of the State District Hospital in Prague VIII-  
Bulovce (Head--Head-Physician Docent J. Jirman, M. D.).

CML 19, 5, Nov., 1950

JIRMANOVÁ, I.; SOBOTKOVÁ, M.; THFSLEFF, S.; ZELENA, J.

Atrophy in skeletal muscles poisoned with botulinum toxin.  
Physiol. Bohemosl. 13 no.5:467-472 '64.

1. Institute of Physiology, Czechoslovak Academy of Sciences,  
Prague, and Department of Pharmacology, University of Lund,  
Sweden.

KLOSS, Albert; JIRMAR, Vaclav, inz.; KARLOVSKY, Petr

Silicon rectifier of the first Czechoslovak alternating current  
locomotive. El tech obzor 53 no. 5:268-272 My '64.

1. Ceskomoravska-Kolben-Danek Praha, National Enterprise.

JIRMEROVÁ, J.

Cast formations on the peak of Dumbier. p. 355

KRASY SLOVENSKA (Povolenictvo Dopravy. Riaditelstvo pre cestovny ruch)  
Bratislava Czechoslovakia

Vol. 36, no. 9, Sept. 1959

Monthly list of East European Accessions (EEAI) LG. Vol. 9, no. 1 January 1960

Uncl.

JIRNUSKI, M.

Some problems of methodology and method on economic geography of a country of people's democracy. p. 7.

PROBLEME DE GEOGRAFIE. (Academie Republicii Populare Române. Institutul de Cercetari Geografice) Bucuresti, Romania. Vol. 6, 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, No. 2, Feb. 1960.

Uncl.

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5

JIRMUNSKI M.M.

Formation and essence of the branch regions. Analele geol geogr 17  
no.1:106-124 Ja-Mr '63.

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620020-5"

L 38933-66

ACC NR: AP6029733

SOURCE CODE: CZ/0030/65/000/007/0214/0216

20  
B

AUTHOR: Jirmus, J.; Zeman, F. (Engineer)

ORG: [Jirmus] CSAV, Prague; [Zeman] VD, CSAV, Prague

TITLE: Stabilized source with decadic voltage control

SOURCE: Jemna mechanika a optika, no. 7, 1965, 214-216

TOPIC TAGS: voltage regulator, laboratory instrument

ABSTRACT: The article discusses the principle of the instrument, describes the method of its calibration and gives its parameters. The chief merits of the instrument are its high stability and the rapid and precise adjustment of the output voltage. The instrument is very suitable for wide use in laboratories. Orig. art. has: 4 figures. [JPRS]

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 006

Card 1/1 Hb

UDC: 621.313.1

09180214

S/275/63/000/002/028/032  
D405/D301

AUTHOR: Jirousek, J.

TITLE: D.C. transistor stabilizer circuit

PERIODICAL: Referativnyy zhurnal, Elektronika i eye primeñeniye,  
no. 2, 1963, 37, abstract 2V229 P (Chelhosl. pat.  
kl. 21 a<sup>4</sup>, 35/14, no. 101668, 15.11.61 (Czechoslo-  
vak patent))

TEXT: In the proposed d.c. transistor stabilizer, consisting of a multi-stage semicond.-triode d.c. amplifier and of a reference-voltage source (battery and Zener diode), a fraction of the input voltage of the stabilizer is applied via a coupling impedance to the lower branch of an output-voltage divider from which the d.c. amplifier voltage is drawn. As a result, by an appropriate choice of divider resistances and of the coupling impedance, a decrease in stabilizer input voltage ensures overcompensation or the obtaining of an effect, as it were, of negative internal resistance of the input-voltage source. The circuit permits widening the range of

Card 1/2